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ATTITUDE TOWARDS M-LEARNING AMONG PROSPECTIVE TEACHERS

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ABSTRACT

The main objective of the Study is to find out the level of Attitude towards M-learning among prospective teachers with respect to Gender, Locality, Academic Streams and Type of Management. Survey method was adopted to collect the relevant data for the present study. Attitude towards M-learning Scale (2016) developed and standardized by P.Pachaiyappan and it was used to collect data for the present study. The Researcher randomly selected 337 B.Ed. Student Teachers studying in Government, Government Aided and Private Colleges of Education in and around Chennai and Tiruvallur District of Tamilnadu. For analyzing the data percentage, mean, standard deviation,'t'- test and one way ANOVA are used. The major findings of the study are: The most of the B.Ed. student teachers have moderate level of attitude towards m-learning. With regard to gender, the male B.Ed. student teachers have higher attitude towards M-learning compared to female student teachers. The urban College B.Ed. student teachers have higher attitude towards M-learning compared to rural college B.Ed. student teachers. The Science Stream B.Ed. student teachers have high attitude towards M-learning compared to Arts Stream B.Ed. student teachers. The study results also reveal that Government Aided College B.Ed. student teachers have higher attitude towards m-learning compared to their counterparts.

KEY WORDS: M-learning, Prospective Teachers, Attitude towards M-learning, B.Ed. Student Teachers, Mobile Technology, Personal Digital Assistants (PDAs), Mobile Devices

Introduction

Mobile learning refers to any learning that takes place when the location of the learner is not fixed, or the process of learning is enhanced by using mobile devices and technologies. In education sector mobile Learning could be used for providing ubiquitous and pervasive educational activities and services. Mobile Learning or m-learning has only just begun to take shape. And many are unsure what that shape is exactly, but understanding the basic direction of technology that is of getting smaller then it is seen the need for e-learning practitioners to be prepared for m-Learning.

Mobile learning is an emerging educational trend and provides many opportunities for both instructors and learners. The several attractive mobile learning tools have been designed and developed by integrating with the emerging technologies. Mobile learning refers to any sort of learning that happens when the learners is not at a fixed, pre-determined location or learning that happens when the learner takes advantage of learning offered by mobile technologies. M-learning is convenient in that it is accessible from virtually anywhere. It also brings strong portability by replacing notes and books with small devices, filled with tailored learning contents. Mobile learning (M-learning) is the use of handheld (mobile) devices such as personal digital assistants (PDAs), laptops, cell phones and any other handheld information technology device that may be used in teaching and learning. The mobile devices promote the use of "anytime, anywhere learning" allowing users to transcend the limitations of the traditional presence-based classroom, and to fit learning into their daily lives, whenever they have the time or the inclination. According to Caudill (2007) Mobile learning is any e-learning application distributed on-demand through mobile digital device. Ally (2009) states that the process of using a mobile device to access and study learning materials and to communicate with fellow students, instructors or institution. According to Park (2011) while popularity of mobile devices is increasing day by day, many practitioners use mobile technology in their teaching and learning environments. Mobile technologies have brought new changes in working and learning because of some characteristic features such as independence of place and time. Quinn (2000) considered mobile learning as the overlap of using e-learning (learning by using information technologies and devices) and mobile computing, which includes mobile applications in the small, wireless, and portable devices such as smart phones and PDAs. Traxler (2005) defined it as "any educational provision where the sole or dominant technologies are handheld or palmtop devices."

M-learning has become the hottest new technology based learning method. The important challenge is the attitude and outlook amongst people towards the adoption and usage of m-learning based teaching and learning methodologies. Mobile is emerging and with that is coming uncertainty and caution. This research evaluates and provides findings of the overall outlook among the B.Ed. student teachers towards the adoption of m-learning and effects of use of m-learning either in conjunction with e-learning or the traditional way of face to face learning. Hence the present study was conducted to evaluate attitude towards m-learning among prospective teachers.

Review of Related Literature

Al-Fahad (2009) conducted a study to better understand and measure students' attitudes and effectiveness of mobile learning. The result of his study revealed that the majority of students supported the idea that the wireless networks increase the flexibility of access to resources of learning independently in any place. Therefore, students can save their time, effort and even money. Abidin, Amin, Mahmood, & Rahman (2006) in their study, say that the implication and use of mobile phones and handheld devices among students has dramatically changed and increased, implementation of M-Learning in academic institutions becomes an interesting and urgent need of the society. Most of the research show a positive result on student perceptions of mobile learning in a total number of 18 research studies (Clarke, Keing, Lam & McNaught, 2008, Al-Fahad, 2009; Wang, Shen, Novak & Pan, 2009; Garrett & Jackson, 2006; Cavus & Uzunboylu, 2009; Uzunboylu, Cavus & Ercag, 2009; Manair, 2007; Maag, 2006) and it was suggested by the students that mobile learning improved their learning experiences and made the learning process more interesting (Rogers et al. 2010; Venkatesh, Nargundkar, Sayed & Shahaida, 2006; Wang et al 2009) (cited in Pollara & Broussard, 2011).

Need and Significance of the Study

In education sector mobile learning could be used for providing ubiquitous and pervasive educational activities and services. Mobile Learning or m-learning has only just begun to take shape and many are unsure what that shape is exactly, but understanding the basic direction of technology that is of getting smaller then it is seen the need for e-learning practitioners to be prepared for m-learning. The mobile devices promote the use of anytime, anywhere learning, allowing users to transcend the limitations of the traditional presence-based classroom, and to fit learning into their daily lives, whenever they have the time or the inclination. This conveying of educational content through mobile phones, smart phones and PDA's is known as mobile learning. With devices such as smart phones and tablets making their way to every hand, mobile learning has also begun to spread its wings. It is slightly different from e-learning which aims to do the same but through the medium of laptops and computers. Hence, e-learning is location bound; while mobile learning allows one to attend lectures, read, and teachers' questions from anywhere and at any time. Nowadays, nearly every school now has some form of mobile presence through applications, mobilized web pages, and text messaging. The higher education community is moving closer towards providing every student, faculty, and staff member with a pocket-sized version of the entire campus. The challenge going forward will be to define a new model for how mobile services will inspire new modes for campus at specific examples where post-Secondary institutions combine e-learning and mobile services to create a transformative Mobile 3.0 experience for students.

Mobile learning, popularly called as m-learning, is learning accomplished with the use of small, portable computing devices. These computing devices may include: smart phones, personal digital assistants (PDAs) and similar handheld devices that usually operate in a wireless environment and have a connection to the internet. M-learning represents a new way to dispense and benefit educational materials, overcoming the actual limitations of its predecessor e-learning.

While e-learning moves education from classroom and campus to non-mobile multimedia personal computer systems, m-learning moves it one step ahead to offering the freedom of performing learning activities either online/offline in different contexts and several applicative domains, minimizing the time wasted and maximizing profits and the improvement of skills. The B.Ed. student teachers are the future teachers well aware the m-learning technologies then only the students' community will be immensely benefited in the future. Developing positive attitude towards m-learning among B.Ed. student teachers is need of the hour. Hence the present study seems to be necessary.

Scope of the Study

The study has been undertaken to find out the level of attitude towards m-learning among B.Ed. student teachers. The findings of the study will be helpful for prospective teachers to understand their strengths and weaknesses and modify their attitudes and behaviors' accordingly. The findings of the study will enlighten curriculum planners to incorporate various aspects of ICT, m-learning in teacher education programme.

Objectives of the Study

1. To find out the level of attitude towards m-learning among B.Ed. Student teachers.
2. To find out the attitude towards m-learning among B.Ed. Student teachers with respect to
   (a) Gender
   (b) Locality
   (c) Academic Streams
   (d) Type of Management

Hypotheses of the Study

Ho1: There is no significant difference in the attitude towards M-learning among the prospective teachers with respect to gender.

Ho2: There is no significant difference in the attitude towards M-learning among the prospective teachers with respect to locality.

Ho3: There is no significant difference in the attitude towards M-learning among the prospective teachers with respect to academic streams.

Ho4: There is no significant difference in the attitude towards M-learning among the prospective teachers with respect to type of management.

Methodology of the Study

The Researcher has adopted the survey method for investigation of the problem. This helps to find out the real conditions, which are prevailing in the B.Ed. Colleges.

Research Tools Used

- Personal Data sheet Developed by the Researchers.
- Attitude towards M-learning Scale (2016) Constructed and Standardized by P.Pachaiyappan and it was used to collect the relevant data for the present study.

Reliability and Validity

The Reliability of M-Learning Attitude Scale (MLAS) has been established by calculating Cronbach's alpha (r=0.940) and the intrinsic validity was established by taking the square root of the reliability coefficient i.e. 0.969. Thus from the two co-efficient, it was inferred that this tool is highly reliable and valid. The developed tool was given to the experts in the field of Education, IT and Educational Research. Suggestions given by them were incorporated and some of the items were restricted and rewarded. The finalized questionnaire was subjected to another review by the same experts. Thus face validity and content validity of questionnaire also was established.

Sample

Random Sampling technique is used for selecting the sample. The sample consists of 158 male and 179 female B.Ed. Student teachers Studying in Government, Government aided and Private Colleges of Education in and around Chennai and Tiruvallur District of Tamilnadu. The size of the sample is 337.

Statistical Techniques Used

For analyzing the data percentage, mean, standard deviation,'t'- test and one way ANOVA are used.

Data Analysis and Interpretation

Table 1: The level of Attitude towards M-learning among Prospective Teachers

Level of Attitude towards M-learning	N	Percent
Low	94	27.89
Moderate	157	46.60
High	86	25.51
Total	337	100.0

From the above table it is clear that most of the B.Ed. Student teachers have (46.60%) moderate level of attitude towards m-learning. The study also reveals 25.51% of B.Ed. student teachers have high and the 27.89% of B.Ed. student teachers have low level of attitude towards m-learning.

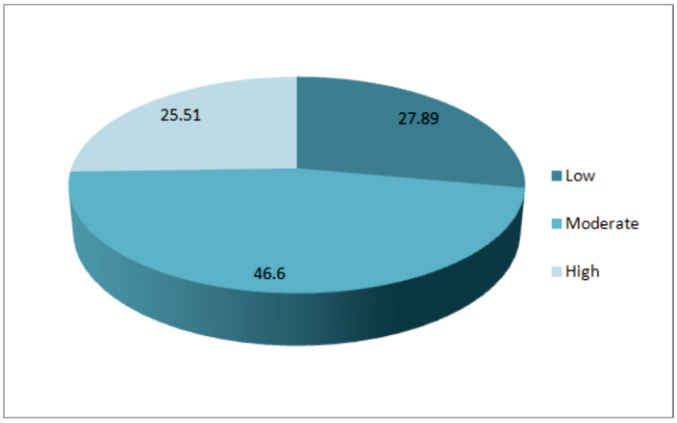

Fig.1 shows the level of Attitude towards M-learning among Prospective Teachers

Ho1: There is no significant difference in attitude towards m-learning among prospective teachers with respect to Gender

Table 2: Attitude towards M-learning among prospective teachers with respect to Gender

Gender	N	Mean	SD	t value	Level of Significance
Male	158	51.97	8.72	2.768	0.01
Female	179	48.42	10.27		

From the above table, the calculated 't' value is 2.768 greater than the table value (1.96). It is found that there is a significant difference between the male and female B.Ed. Student teachers' attitude towards M-learning. Hence the null hypothesis Ho1 is rejected.

Ho2: There is no significant difference in attitude toward m-learning among prospective teachers with respect to Locality

Table 3: Attitude towards M-learning among prospective teachers with respect to Locality

Locality	N	Mean	SD	t value	Level of Significance
Rural	213	209.15	54.457	3.311	0.01
Urban	124	229.77	56.322		

From the above table, the calculated't' value is 3.311 greater than the table value (1.96). It is found that there is a significant difference between the rural and urban college B.Ed. Student teachers' attitude towards M-learning. Hence the null hypothesis Ho1 is rejected.

Ho3: There is no significant difference in attitude towards m-learning among prospective teachers with respect to Academic Streams

Table 4: Attitude towards M-learning among prospective teachers with respect to Academic Streams

Academic Streams	N	Mean	SD	t value	Level of Significance
Arts	213	209.15	54.457	2.651	0.01
Science	124	229.77	56.322		

From the above table, the calculated't' value is 2.651 greater than the table value (1.96). It is found that there is a significant difference between the arts and science stream B.Ed. Student teachers' attitude towards M-learning. Hence the null hypothesis Ho1 is rejected.

Ho4: There is no significant difference in attitude towards m-learning among prospective teachers with respect to Type of management

Table 5: Attitude towards M-learning among prospective teachers with respect to Type of Management

Type of Management	N	Mean	SD	F value	Level of Significance
Government	52	226.33^{ab}	51.301	6.868	0.01
Govt. Aided	93	231.12^{a}	58.260		
Private	192	207.18^{b}	54.347		

The F-value from the above table, is found 6.868, it is found to be significant at 0.01 levels. It indicates that there is a significant difference in the attitude towards m-learning among the B.Ed. Student teachers with regard Type of Management. It indicates the Government aided B.Ed. student teachers have higher attitude towards m-learning compared to their counterparts. Hence the null hypothesis Ho4 is rejected

Major Findings of the Study

- The study result reveals that most of the B.Ed. student teachers have moderate level of attitude towards M-learning.
- With regard to gender, the male B.Ed. student teachers have higher attitude towards M-learning when compared to female student teachers.
- The urban College B.Ed. student teachers have higher attitude towards M-learning when compared to rural College B.Ed. student teachers.
- The Science Stream B.Ed. student teachers have higher attitude towards M-learning when compared to Arts Stream B.Ed. student teachers.
- It was found that the Government Aided College B.Ed. student teachers have higher attitude towards M-learning compared to their counterparts.

Educational Implications

Knowledge acquisition is no longer restricted to a certain place and time. In fact, there is a rapid change taking place to traditional learning methods. Learning in the 21st century, or the digital age, is affected by the rapid development of information and communication technologies and the availability of low-cost mobile devices. (Mobile laptops, tablets, smart phones, PDAs, etc.), and this has resulted in mobile devices becoming more pervasive. Facilitated by the increasing functionalities of mobile devices and global connectivity, learners in the future are likely to have more opportunities to construct their own knowledge and shape their own learning experiences. New technologies will provide unprecedented access to formal online courses, open-access journals and rich peer reviewed content. Students will take on a more active role in determining what and how they learn, while teachers will act as curators and guides, helping students navigate and benefit from the dizzying number of educational resources accessible via mobile technologies. The ability to collect and analyse vast amounts of learner-generated data will be a major factor in the development of mobile learning over the next fifteen years. Researchers engaged with online learning, intelligent tutoring systems, virtual labs, simulations and learning management systems are currently exploring ways to better understand and use learning analytics to improve teaching and learning in the future.

Conclusion

M-learning is a new way of learning which makes learning portable, spontaneous, efficient and exciting. The most important future of M-learning is it decreases limitation of learning location. The ease of use, mobility and personalization aspects of mobile devices makes it an ideal medium for this next step in E-learning. M-learning is the future learning. In order to have proper functioning of the mobile Internet for learning, the e-learning community must focus on the performance and productivity issues rather than traditional lecture style training or courseware. The Indian educational industry is in evolving stage. India might well be one of the leading countries to adopt M-learning in coming years owing to the number of young users. Naturally, they shift from 'd-Learning'(distance learning) to 'e-Learning'(electronic learning) and now from 'e-Learning' to 'm-Learning'(mobile learning) will be the next huge wave, which will modernize the education in India and can play the role as an educator in future. Therefore, all the teachers well aware the usage of modern mobile technologies then only future generation immensely benefited.

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